

CONVEX GEOMETRY ADHESIVE FILM SYSTEM FOR LASER CAPTURE MICRODISSECTION

ABSTRACT OF THE DISCLOSURE

5 A tissue sample is conventionally visualized in a
microscope. A selectively activated convex surface is
provided, preferably at the distal end of a rod. This
selectively activated convex surface when activated, typically
with a laser through an optic light path in the microscope,
10 provides the activated region with adhesive properties. At
least one portion of the tissue sample which is to be
extracted is identified. This identified portion is contacted
with a portion of the selectively activated convex surface on
the end of the rod. When the convex surface is activated,
15 typically by exposure to laser light in the footprint of the
desired sample, an adhesive transfer surface on the
selectively activated convex surface is provided which adheres
to the desired cells in the footprint of the desired sample.
Thereafter, the adhesive transfer surface is separated from
20 the remainder of the tissue sample while maintaining adhesion
with the desired cells. Thus the desired portion of the
tissue sample is extracted. The disclosed selectively
activated convex surface is preferably utilized to collect
desired tissue samples at more than one location on the same
25 slide or from different slides. The collected tissue samples
can thereafter be inspected if desired, as collected on the
convex surface, and then liberated - as by dissolving the
proteins of the samples. This can effectively concentrate
a rarely occurring ~~remaining~~ cells in order to obtain enough pure
30 material for analysis. A rod having a convex surface with the
selectively activated material is set forth as a staple for
use with the apparatus and process. Preferred shapes for the
convex surface are disclosed as well as a method for coating
rods with a resultant rod article.